



Annual report: Gas Distribution 2024/25

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for energy consumers

Executive Summary

Gas networks remain a vital source of heat for homes, for powering businesses and industry, and as a key pillar of energy security. While a long-term move away from natural gas is anticipated as part of achieving net zero by 2050, they remain essential in the short to medium term.

Maintaining reliability and strengthening resilience while adapting to a changing energy mix is a key priority for Gas Distribution Networks (GDNs). The Iron Mains Risk Reduction Programme (IMRRP) is the cornerstone of the sector's replacement capital expenditure (Repex) workload. Through this programme, GDNs are replacing ageing iron and steel mains with modern plastic pipes, strengthening safety and reliability, and reducing leakage.

Looking further ahead, the sector is actively exploring hydrogen as part of the UK's future energy mix. GDNs are investing in innovation and pilot projects to test hydrogen blending and assess how existing infrastructure can support low-carbon gases.

These evolving challenges have informed our recent Final Determinations for the next price control period (RIIO-GD3), with £14.6bn¹ in up front funding for five years from April 2026, alongside a range of flexible funding tools to respond to emerging needs.

We closely monitor GDN performance throughout the current price control (RIIO-GD2²) to ensure delivery of agreed investment plans and outputs. We remain committed to ensuring that funding delivers maximum value for consumers. This is supported by rigorous annual checks, cost safeguards, and accountability measures.

This report summarises findings from our review of GDN's latest annual data. It assesses delivery over the first four years of RIIO-GD2, evaluates expectations for the remainder of the price control and beyond, and examines the drivers behind plans to achieve end-of-period objectives. Our key observations are:

- **Outputs performance:** GDNs have delivered strong performance against key outputs this year, including customer satisfaction and emergency response, with some variability in unplanned interruptions and environmental targets. Tier 1 mains delivery is broadly on track, except SGN Southern, which is off track but improving.
- **Delivery:** early RIIO-GD2 progress was slow, with delays to capital works programmes. Activity has since accelerated with GDNs showing encouraging progress.
- **Totex performance:** four-year spend is £8.50bn against a £8.35bn allowance (1.8% overspend), mainly due to inflationary pressures, higher labour and material costs, and catch-up after COVID-19 delays. Year five is forecast spend is £11bn (4.8% overspend against the RIIO-GD2 allowance).

GDNs have made steady progress through RIIO-GD2 despite inflation, supply chain issues, market volatility, and COVID-19 impacts. Entering the final year of RIIO-GD2, most networks are expected to meet core obligations. Any shortfalls in volume delivery—such as in a low carbon vehicle fleet or domestic connections—will be managed transparently, with funds returned to consumers where appropriate.

¹ <https://www.ofgem.gov.uk/decision/riio-3-final-determinations-electricity-transmission-gas-distribution-and-gas-transmission-sectors>

² This is the second gas distribution price control using the Revenue = Incentives + Innovation + Outputs (RIIO) model.

Introduction

This report presents findings from our review of the latest annual data from the owners of Great Britain’s four gas distribution network (GDN) companies. The providers of gas distribution services are:

- Cadent which operates across four regions - East of England (EoE), London (Lon), North-West (NW) and the West Midlands (WM).
- Northern Gas Networks (NGN) which operates in one region
- SGN which manages the network in Scotland (Sc) and the South of England (So); and
- WWU which operates in one region comprising of Wales and the South-West of England.

It examines performance trends over the first four years, evaluates GDN expectations for the five-year price control period (RIIO-GD2), and explores drivers behind performance and plans for achieving end-of-period ambitions based on 2024/25 data. It also provides an overview of the GDNs' current total cost (totex) expectations across the five-year price control period.

Structure of this report

- **Key findings** are summarised in the next section.
- **Chapter One** outlines how the GDNs have performed against their outputs and incentives including earned payments and penalties.
- **Chapter Two** provides an overview of GDNs’ actual and forecast workload activity related to volume drivers and Price Control Mechanisms (PCDs), across the RIIO-2 period.
- **Chapter Three** summarises the innovation-related expenditure of each GDN.
- **Chapter Four** provides a summary of total cost (totex) and adjusted allowances across all GDNs. It reflects our assessment of expected cost performance over the five-year period.³

All financial values in the report are in 2018-19 price base unless stated otherwise.

- Two **subsidiary documents** are published alongside this report. A document presenting further detail of the areas of GDNs’ performance, and a supplementary data file containing additional data.

³ A detailed breakdown of cost activity performance for each GDN is available in the supplementary appendix.

Key findings

Annual Output and Incentive Targets

In 2024–2025, GDNs continue to perform strongly against most annual targets, though challenges remain in some incentive areas.

- **All networks maintained excellent customer service** through strong performance in their Customer Satisfaction (CSAT) survey and complaints metric.
- **All networks met their annual Emergency Response targets**, and most networks are avoiding penalties for any poor performance against their unplanned interruptions incentives. However, **SGN Southern again missed its targets on unplanned interruptions** due to continued difficulty in mitigating unexpected outages on Multi Occupancy Buildings (MOBs).
- **Mixed performance on environmental incentives:** most GDNs are performing above their shrinkage targets but Cadent and SGN incurred penalties. All GDNs except for Cadent are also finding it difficult to secure operationally viable vehicles under the Commercial Fleet PCD from which we are seeing a knock-on effect to their performance in Business Carbon Footprint (BCF).

Table 1: Cumulative output and incentive earnings by GDN (£m)

GDN	Total
Cadent	27.97
NGN	7.25
SGN	10.77
WWU	6.30

Innovation expenditure

Innovation projects continue to progress, with all GDNs registering additional initiatives. To date, 353 projects have incurred costs through the NIA mechanism, with total expenditure of around £43.1m across all GDNs to date.

Delivery

GDNs are mostly meeting workload delivery targets, with a few exceptions. Where targets are missed, funds are returned to consumers.

- **All GDNs, except for SGN Southern, are forecast to meet Tier 1 mains commitments**, but some networks are currently intervening on a lower number of Tier 1 services than expected at the start of the price control.
- **Tier 2A mains and services delivery is mixed** across GDNs. A volume driver ensures funding is returned to customers where forecasts are not met.
- **Customer-driven connections have continued to fall year-on-year** throughout the price control period, reflecting reduced demand.
- **Companies are delivering well against their bespoke PCD commitments**, with most outputs on track or exceeded and only isolated areas facing minor delays.

What level of cost performance are GDNs currently anticipating?

Current five-year forecasts show varied performance across networks. Some GDNs expect to outperform their totex allowances, with underspends of between 2–6%, while others anticipate overspends ranging between 5–8% over the period.

Table 2: Cumulative and forecast totex performance by GDN (%)

	Years 1-4 actual	Five-year forecast
Cadent	6.3% overspend	7.7% overspend
NGN	8.5% underspend	6.1% underspend
SGN	1.7% overspend	7.6% overspend
WWU	5.5% underspend	1.6% underspend
Total	1.8% overspend	4.8% overspend

Company summary

Cadent

Cadent demonstrated strong overall performance, building on the clear progress it has made through RIIO-GD2. It had some of the top scores for customer service in connections and maintained high standards in operational delivery. Cadent's emergency response has maintained the recovery achieved last year following the missed targets in 2022/23. It is making steady progress on its environmental commitments, despite the London network receiving a penalty for shrinkage. While there are some regional challenges, the overall trajectory is positive, reflecting a consistent focus on meeting core outputs.

Delivery is going well, including for Repex Tier 1 mains, capital projects, and bespoke PCDs. However, delivery of Tier 1 services is currently below forecast levels.

Financially, the company is forecasting to overspend its five-year allowance by 7.7%, mainly driven by higher costs in London and East of England. The company attributes this to operational challenges and urban complexity in these areas as well as wider issues of inflation, and market pressures.

NGN

NGN is performing well, with customer service and operational reliability remaining strong. Though its shrinkage performance is progressing similarly well, business emissions are continuing to rise. Some projects have encountered delivery challenges, but NGN's overall performance remains robust and aligned with expectations.

Delivery is also strong, with the company consistently meeting or exceeding output

targets for mains replacement and services. Delivery of capital projects and bespoke PCDs is on track, positioning NGN to fulfil its commitments by the end of the price control period.

NGN has maintained a strong expenditure position throughout RIIO-GD2, consistently underspending their regulatory allowances, with a projected 6.1% underspend by the end of the price control period. Expenditure on Tier 1 mains and services has remained close to allowance, and capital costs are well controlled. While NGN has faced challenges such as delays to major projects and a sustained decline in domestic connection volumes (leading to stranded fixed costs) which it has said is driving the overspend, it has managed these pressures effectively, ensuring continued delivery and value for money for customers.

SGN

SGN has delivered solid results in customer service and maintained last year's recovery in emergency response following targets missed in 2022/23, sustaining a strong position overall. However, performance against some operational and environmental commitments has been more mixed. SGN Southern has again missed its targets in unplanned interruptions and reported a rise in shrinkage.

SGN's Scotland region is performing strongly and remains ahead of workload targets. SGN Southern has improved delivery but still faces challenges catching up on earlier shortfalls. Overall, SGN is progressing on mains replacement, services, and capital projects, with bespoke PCDs advancing, though performance varies between regions.

SGN's cost performance has varied between regions: Scotland has consistently delivered

efficiently, ending 2024/25 with a 10.4% underspend and forecasting a 4% underspend for the full period. In contrast, Southern has faced significant cost pressures, reporting a substantial overspend due to accelerated workload and increased contractor costs, resulting in a projected 14% overspend for RIIO-GD2. Overall, SGN expect a 7.6% overspend across the price control period, with Southern's challenges offsetting Scotland's savings.

WWU

WWU maintains a strong record in customer service and emergency response, consistently meeting core requirements. Environmental performance has been variable, with a reported rise in business emissions. WWU has said that much of this increase reflects a shift in reporting rather than actual rise in emissions growth. It has, however, met its targets on shrinkage, earning a reward. It also faces challenges in delivering certain projects, but

overall performance remains steady and broadly in line with expectations.

WWU is making solid progress on delivery, with good performance in mains replacement and services, and its capital project commitment is progressing well. Despite cost pressures and sector-wide challenges, WWU remains well positioned to deliver on most planned activities over the price control period.

The company has improved its cost position relative to the previous annual submission, moving from a forecast overspend to a marginal underspend—currently 5.5% below allowance at the end of 2024/25 and projecting a 1.6% underspend for the full period. This reflects successful cost-saving measures and increased workforce efficiency. However, WWU continues to face cost pressures in Repex, with overspend driven by challenging regulatory allowances, rising costs, and the complexity of remaining work.



Chapter One: Annual output and incentive performance

In this chapter, we examine the performance of the GDNs relating to their outputs and incentives, including the value of rewards and penalties.

Assessment of output delivery incentive (ODI) performance

From our assessments to date, we consider that RIIO-GD2 has been successful in providing incentivising the GDNs to deliver the outputs important to both current and future consumers. While there are some areas of performance that are experiencing challenge, we are working with the companies to ensure the necessary improvements. Four years into the period, we observe that while the GDNs are rising to the challenge across the majority of output and incentive areas, there are some areas proving more problematic for some.

Table 3 provides an overview of GDN performance across all categories in 2024/25.

Table 3: Measures of performance

Green means 'Met': performance on target / ahead of target or above score.

Orange means 'Near': partially missing target / partially behind target or below score.

Red means 'Not met': performance missing target / behind target or below score.

Output area ⁴	Cadent				NGN	SGN		WWU
	EOE	LON	NW	WM		Sc	So	
Customer satisfaction survey	Met	Met	Met	Met	Met	Met	Met	Met
Complaints Metric	Met	Met	Met	Met	Met	Met	Met	Met
Vulnerability and Carbon Monoxide Allowance (VCMA)	Met	Met	Met	Met	Met	Met	Met	Met
Emergency Response LO	Met	Met	Met	Met	Met	Met	Met	Met
Unplanned Interruptions (Cadent specific)	Met	Met	Met	Met	N/A	N/A	N/A	N/A
Unplanned Interruptions (Rest of the GDNs)	N/A	N/A	N/A	N/A	Met	Met	Not Met	Met
Shrinkage Management ODI-R	Met	Met	Met	Met	Met	Met	Near	Met
Shrinkage Management ODI-F	Met	Near	Met	Met	Met	Near	Met	Met
Business Carbon Footprint	Met	Met	Met	Met	Not Met	Near	Met	Not Met ⁵
Commercial Fleet PCD	Met	Met	Met	Met	Not Met	Not Met	Not Met	Not Met

⁴ VCMA, Shrinkage (ODI R and F), BCF, and Commercial Fleet PCD are performance measures for the RIIO-GD2 period. For transparency and ongoing monitoring, performance is reviewed on an annual basis.

⁵ WWU performance in BCF is impacted by their insourcing labour for their mains replacement, which moved emissions from Scope 3 into BCF, reflecting more a change in reporting than a rise in emissions.

ODI reward and penalty performance summary⁶

Table 4: ODI indicative cumulative revenue rewards and penalties (£m)

GDN	Region	2021/22	2022/23	2023/24	2024/25	Subtotal	GDN Total
Cadent	EoE	0.93	2.00	2.43	2.84	8.20	27.97
	Lon	0.84	1.56	2.12	2.51	7.04	
	WM	1.06	1.08	0.65	1.56	4.35	
	NW	1.97	2.12	1.90	2.38	8.37	
NGN	NGN	1.08	2.04	2.01	2.12	7.25	7.25
SGN	Sc	1.30	0.06	1.42	1.41	4.18	10.77
	So	2.13	2.32	0.72	1.41	6.58	
WWU	WWU	1.51	1.37	1.50	1.92	6.30	6.30
Yearly Total		10.81	12.55	12.75	16.17	52.29	

Table 4 summarises the cumulative revenue rewards and penalties accrued by each GDN over the first four reporting years for each incentive area. Table 5 summarises the position across each of the incentive areas.⁷

Table 5: ODI revenue rewards and penalties for each incentive in 2024/25 per GDN region (£m)

	CAD				NGN	SGN		WWU	TOTAL
	EoE	Lon	NW	WM		Sc	So		
Customer Satisfaction Survey	2.73	1.55	1.91	1.36	1.72	1.47	2.42	1.56	14.71
Complaints Metric	0	0	0	0	0	0	0	0	0
Unplanned Interruptions (Cadent)	0	0	0	0	N/A	N/A	N/A	N/A	0
Unplanned Interruptions (Rest of the GDNs)	N/A	N/A	N/A	N/A	0	0	-2.95	0	-2.95
Shrinkage Management ODI-F	0.12	-0.02	0.48	0.21	0.40	-0.05	0.42	0.36	1.90
Collaborative streetworks (Cadent Lon, EoE & SGN So)	0	0.99	N/A	N/A	N/A	N/A	1.53	N/A	2.51
TOTAL	2.84	2.51	2.38	1.56	2.12	1.41	1.41	1.92	16.17

Key points include:

- All GDNs have maintained excellent customer service outcomes, gaining large rewards through CSAT performance and avoiding penalties from strong complaint handling.

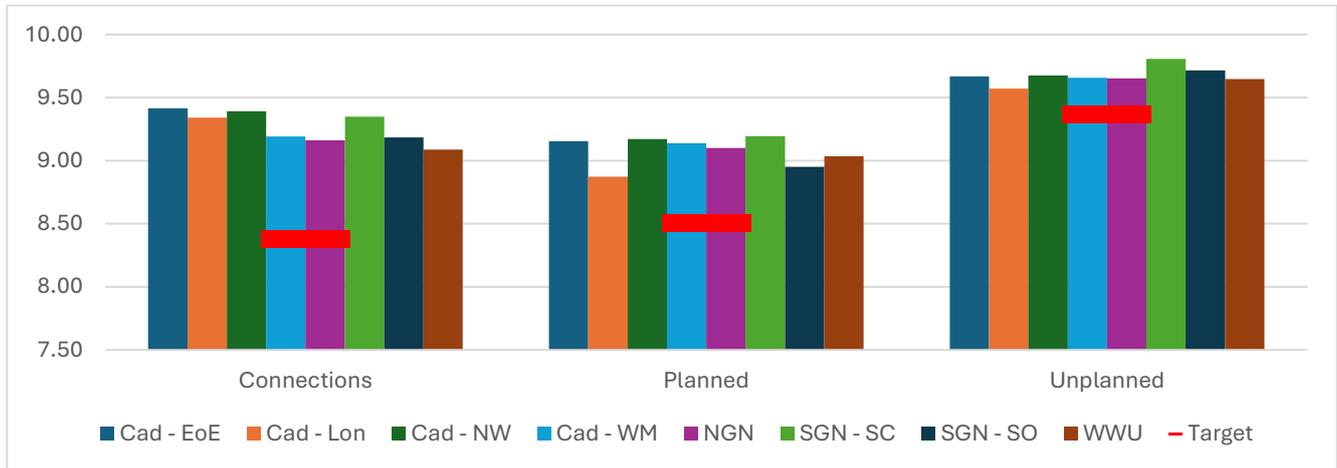
⁶ Values have been extracted from the Revenue workbook and, in some instances, may reflect calculations post 31 July 2025.

⁷ Note complaints and unplanned interruptions are penalty only outputs so zero represents no target breached.

- We have observed generally strong performance by the GDNs in their unplanned interruptions data, with only SGN Southern missing its targets.

Customer Satisfaction Survey

Figure 1: CSAT Performance 2024/25 (Connections, Unplanned, and Planned work)



The purpose of this incentive is to encourage GDNs to deliver exceptional customer service throughout the price control, ensuring that consumer engagement with GDNs is consistently clear, supportive, and prompt. It rewards GDNs that deliver exceptional performance whilst any substandard service is penalised.

The incentive takes into account three elements each with their own target scores: connections, planned work, and unplanned work. Each GDN must carry out surveys on each of the above elements on a weekly or monthly basis.

In our view the GDNs are performing very well in the three elements of the CSAT incentive, with 2024/25 representing the best performance as a sector in RII0-GD2. The continued improved performance is reflected in their financial rewards, increasing from £7.55m in 2021/22 to £14.71 in 2024/25.

Connections: this element focuses on work to provide or modify connections to the gas network.

In 2024/25, all GDNs exceeded the target score of 8.38, with every licensee achieving above 9/10. This continues a positive trend, with steady improvements across the price control period. As a result, all regions received a reward for connections performance in each of the four regulatory years to date.

Planned Work: this element focuses on planned interruptions caused by scheduled activities.

In 2024/25, all licensees exceeded their customer satisfaction targets for planned works. An earlier trend of declining performance in the price control has also been reversed, with most licensees achieving their highest scores of the period. As a result, all regions received a reward under the ODI.

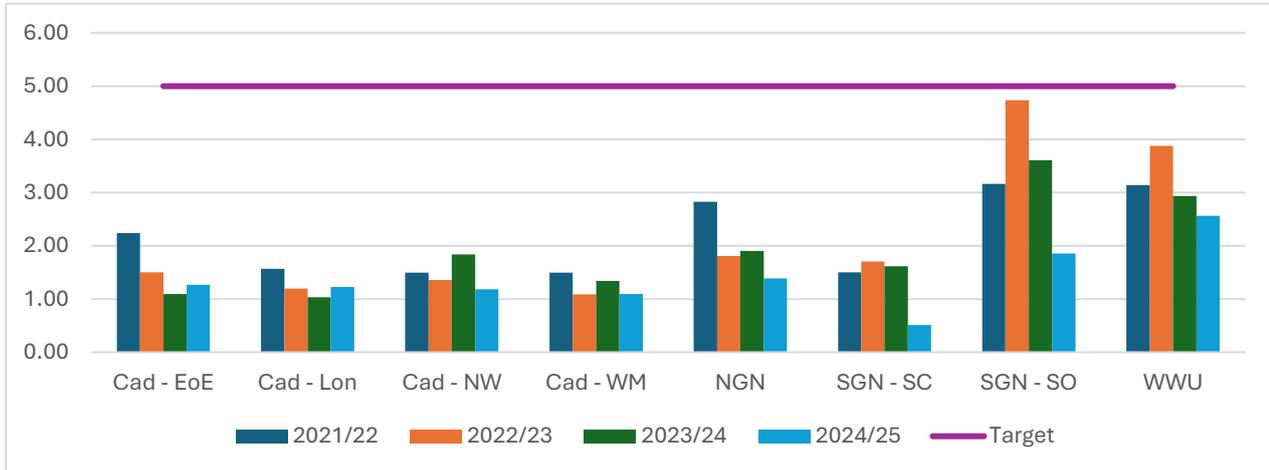
Unplanned work: this element encourages GDNs to respond effectively to unplanned interruptions.

In 2024/25, all GDNs exceeded their target scores for unplanned work, with every licensee achieving above 9.5/10. Performance has improved year-on-year, with most licensees achieving their highest scores of the

period. This sustained progress reflects strong investment and effective strategies, resulting in all regions receiving a reward or remaining within the deadband, with no penalties applied.

Complaints Metric

Figure 2: Complaints Metric – performance against target (2024/25)



The Complaints Metric is an important part of our Customer Satisfaction measures and focuses on how companies deal with complaints. We ask GDNs to record and report complaints related to their regulated product, thereby incentivising them to maintain high quality complaints handling performance.

The target for the Complaints Metric is to record scores below 5. Any scores above that incur a financial penalty.

To date, all GDNs have exceeded the target set and as such no penalties have been applied in RIIO-GD2. Comparing 2024/25 to previous years, overall performance has improved, with most licensees recording their best scores of the price control period.

Earlier variability, particularly for SGN Southern and WWU, has been addressed, with both showing substantial improvement from previous peaks. While performance remains varied across licensees, all scores are significantly better than the target, and the downward trend indicates progression in GDN effective complaint management. For those licensees where better scores were achieved in earlier years, we encourage continued focus to prevent any reversal of improvements and maintain strong performance against this metric.

Emergency Response License Obligation

GDNs must attend 97% of reported escapes within one hour for uncontrolled escapes and two hours for controlled escapes. This provides reassurance to consumers that gas safety risks are consistently addressed as quickly as possible. While emergency response is an output, it is not a financially incentivised output but a Licence Obligation, which is why it does not appear in the ODI reward table.

For both controlled and uncontrolled escapes, all GDNs met or exceeded the annual regulatory target in 2024/45, responding to 97% of controlled escapes within prescribed timeframes. Performance remained at or above the required standard, indicating strong operational reliability from the GDNs.

Though for RIIO-GD2 this is an annual target, we also have a monthly breakdown of the GDNs' response data to assess whether they consistently maintained the required standard throughout all months of the year, which can be seen in the tables below.

Figure 3: Monthly Uncontrolled Escapes (1 hour)

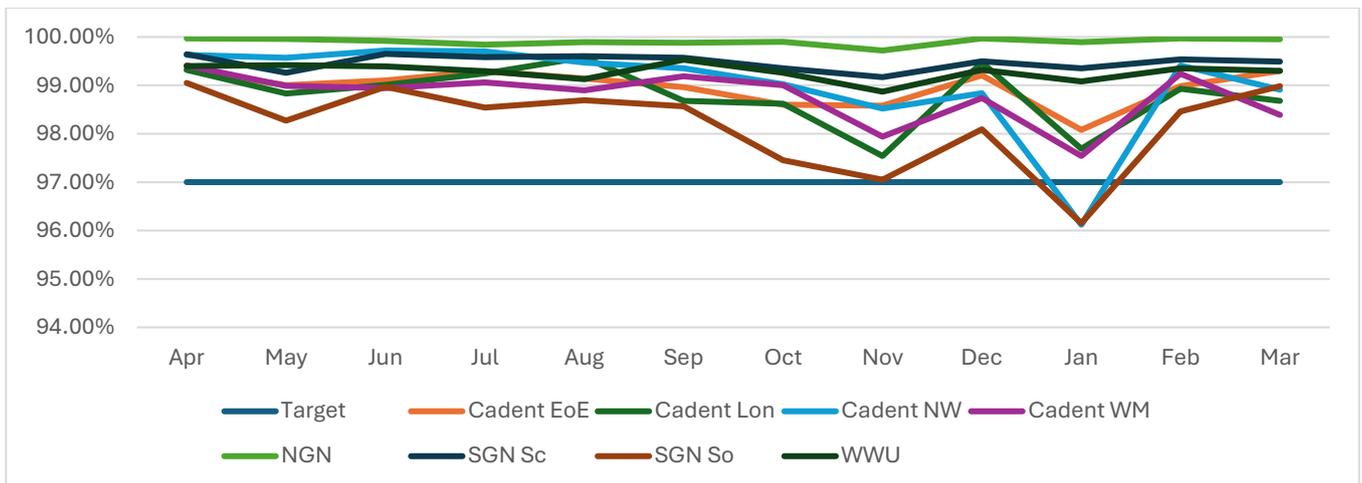
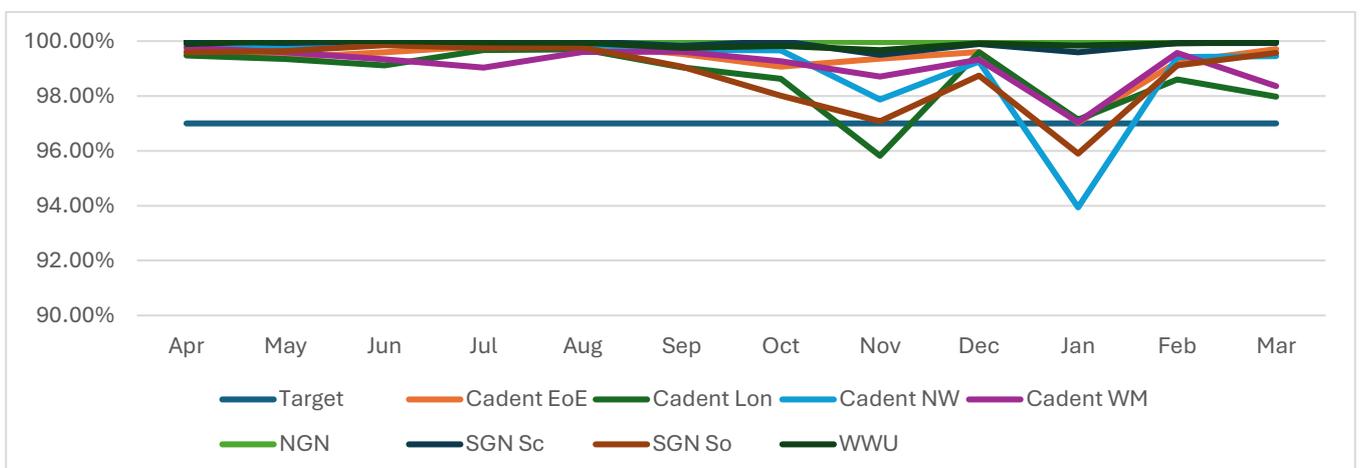


Figure 4: Monthly Controlled Escapes (2 hours)



When reviewing the monthly breakdown, we identified two instances where emergency response rates fell slightly below the 97% target for uncontrolled gas escapes. Cadent NW response rate fell to 96.12% in January

and SGN Southern’s response rate fell at 96.15% in January. Additionally, there were three occurrences for controlled gas escapes. Cadent London’s response rate fell in November to 95.82%. Then in January Cadent NW’s response rate fell to 93.94% and SGN Southern’s rate fell to 95.90%. Although the Licence Obligation is assessed on an annual basis, GDNs are working hard to maintain flexibility in their operations to deliver high-quality service to customers throughout all months of the year. This is an area we continue will to monitor closely and will be included in reporting requirements in RIIO-GD3.

Unplanned interruptions

Figure 5: Cadent non-MOB and NGN, SGN, and WWU MOB & non-MOB 2024/25 average unplanned loss of supply duration (Hours)

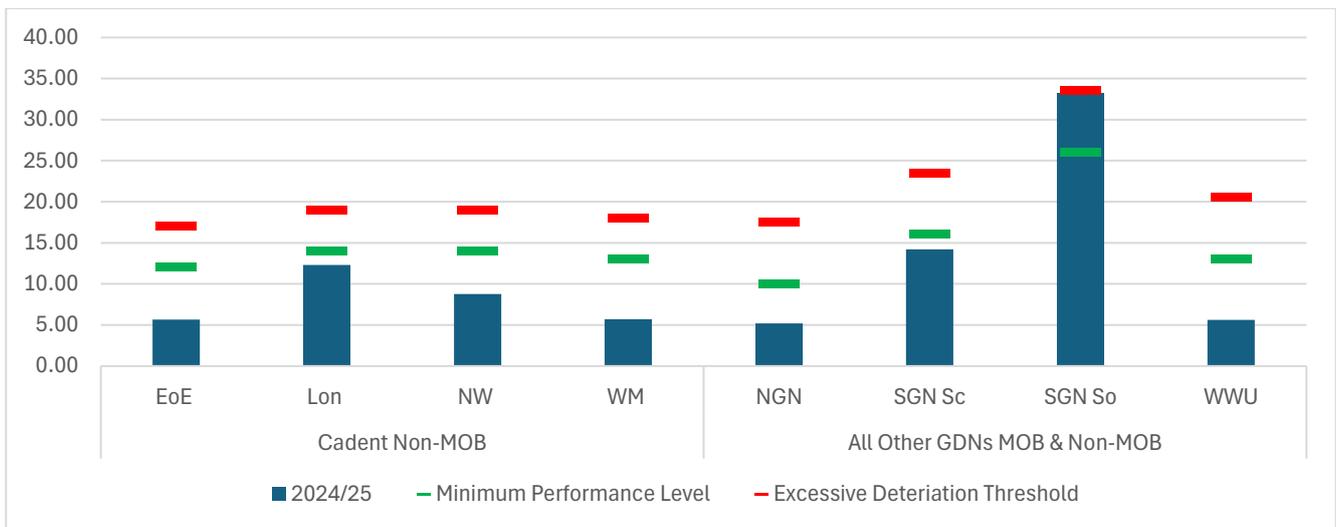
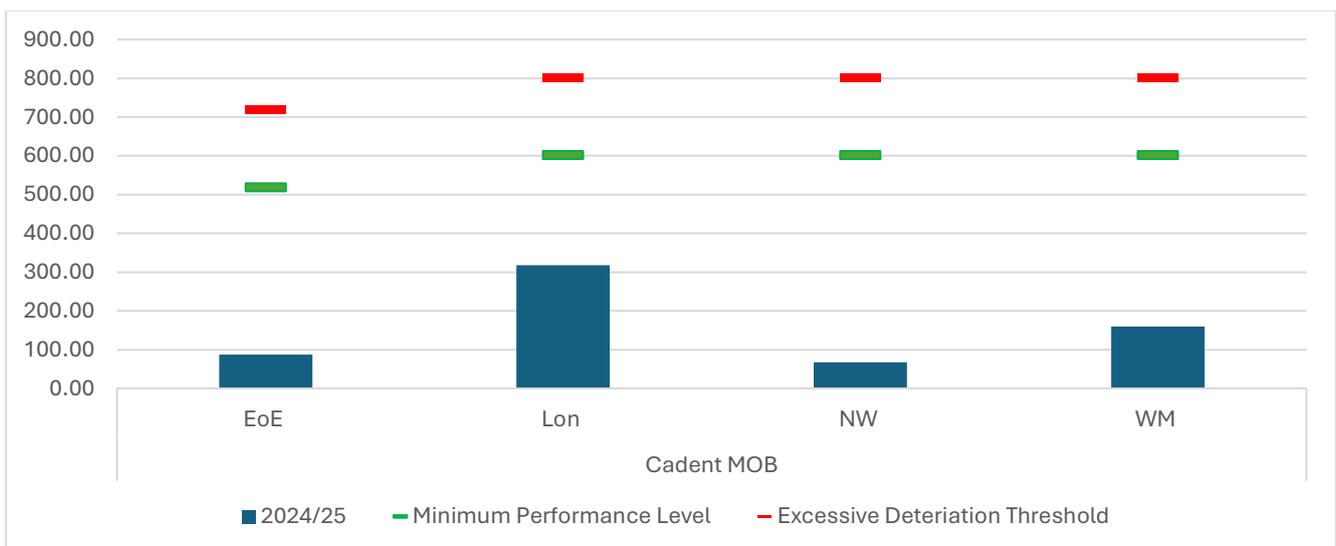


Figure 6: Cadent MOB 2024/25 average unplanned loss of supply duration (Hours)



The purpose of the unplanned interruptions financial output delivery incentive is to ensure that GDNs manage the duration of these interruptions effectively, incentivising them to limit the time consumers spend off supply. An unplanned interruption occurs when no prior notification is given to the customer.

For all GDNs, except Cadent, this penalty only incentive has a combined MOB and non-MOB minimum performance level they must stay under or face penalty and is capped at 0.5% of Base Revenue.

In our view, this ODI has effectively driven performance improvements across RIIO-GD2, with all GDNs except SGN Southern incurring no penalties. In 2024/25:

- **SGN Southern had poor performance on unplanned interruptions again in 2024/25**, incurring financial penalties for missing its target like it did the previous year. We expect to see improvements from SGN in the coming year. SGN Scotland’s unplanned interruption durations met the target.
- **NGN’s average duration for unplanned interruptions stayed comfortably below** both minimum and excessive deterioration targets. No penalty applies to NGN this year.
- **WWU performance was strong in 2024/25**, with all interruption durations well within target ranges and no penalties incurred.

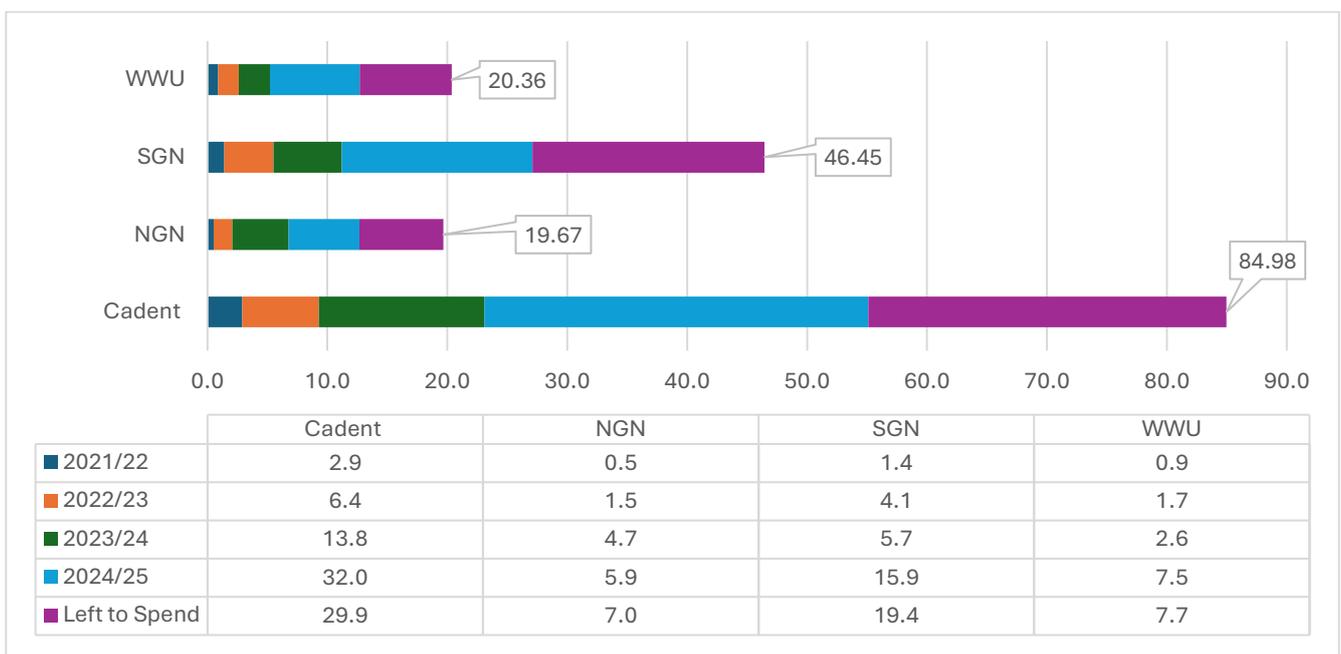
Cadent’s incentive design differs from the other GDNs by including two separate targets for unplanned interruptions, one for multi-occupancy buildings (MOBs), where a riser must be replaced or repaired before supply can be restored, and a second target for all other buildings (non-MOBs).

Both measures are penalty-only incentives with a cap of 0.25% of Base Revenue for each ODI. This approach aims to provide a more accurate and detailed assessment of Cadent’s performance, given the high number of MOBs in its network.

- **All Cadent regions have stayed within the minimum target level for unplanned interruptions** for MOB and Non-MOBs and have therefore avoided penalty.

VCMA

Figure 7: Total VCMA spend and allowances across RIIO-GD2 (£m) *



*Data shows total allowance set out in company licences, with 25% ringfenced for collaborative projects

The **VCMA (Vulnerability and Carbon Monoxide Allowance)** funds GDN projects that go beyond standard obligations, focusing on vulnerability and CO safety.

Projects typically fall into four categories:

- **Priority customer support** – outreach to hard-to-reach groups, boosting PSR uptake and referrals.
- **CO awareness** – education and provision of CO alarms.
- **Fuel poverty and affordability** – initiatives like income maximisation, financial education, and fuel vouchers.
- **Services beyond the meter** – repair or replacement of essential gas appliances outside BAU activity.

GDNs must maintain a varied portfolio, not exclusively focused on one area. The VCMA was initially £60m under RIIO-2 but increased to £171m in October 2023 by repurposing £111m from the Fuel Poor Network Extension Scheme. Of this, 25% is ring-fenced for collaborative projects, with the remainder allocated based on customer numbers.

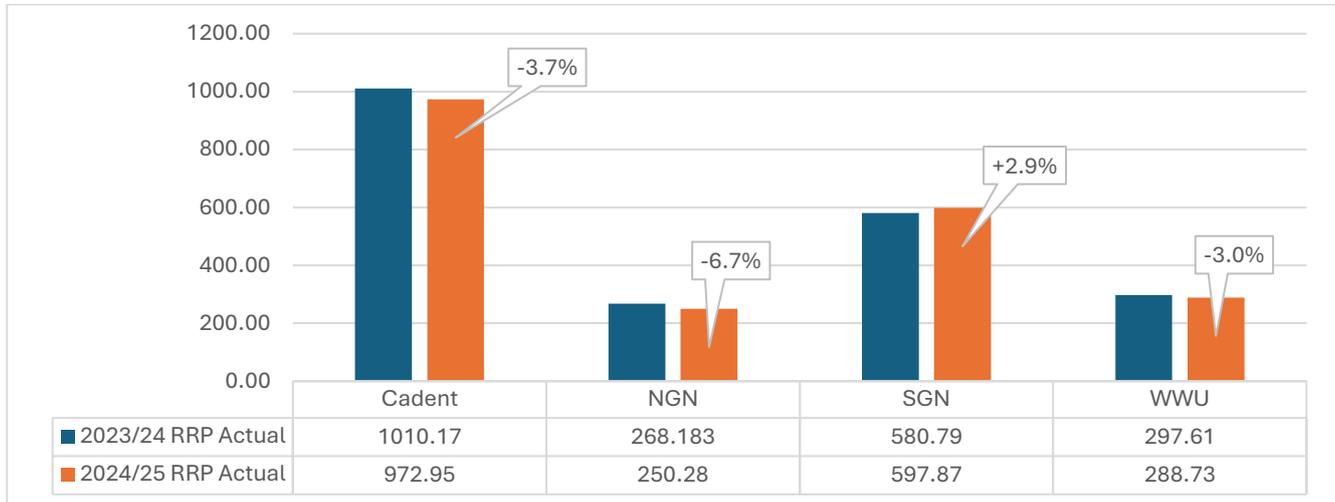
Since the start of RIIO-2, £134.4 million has been invested, with £28.8 million allocated in 2024/25 alone. This funding has funded over 300 different projects, delivering wide-reaching benefits. 1.5 million people in fuel poverty have so far been supported, and there have been 330,000 Priority Services Register (PSR) sign-ups and 75,000 CO alarms distributed. Collectively, these efforts have generated significant social return on investment.

Collaboration between the GDNs has amplified impact across the sector. Notable collaborative projects include:

- Carer Money Matters, which reached over 10,000 carers, unlocking £6.9 million in potential savings.
- CO Safety Campaigns, backed by £4.9 million investment, have reached 120 million people through large-scale seasonal campaigns and targeted education for groups such as Scouts.
- Warm Homes Healthy Futures, which helped vulnerable people secure £1.8 million in unclaimed benefits, exemplifying how the joint effort of the GDNs is helping tackle fuel poverty at scale.

Shrinkage

Figure 8: GDN Shrinkage volume year to year comparison (tCO2e)



Shrinkage represents gas lost from the transportation network and is the largest contributor to the Gas Distribution Networks' (GDNs) carbon footprint. It primarily consists of pipeline leakage (around 95%), theft (3%), and companies' own use (2%). GDNs apply a common leakage model to monitor losses, and reducing shrinkage not only cuts methane emissions, a significant greenhouse gas, but limits the cost of replacing lost gas. Lowering harmful emissions and reducing network costs for consumers.

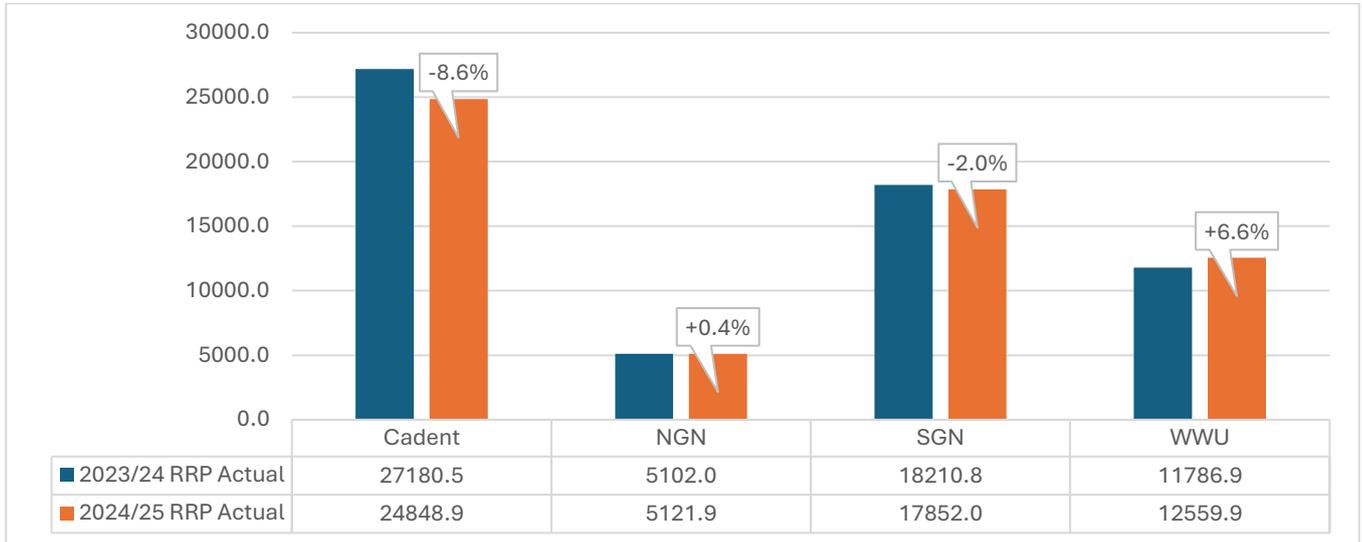
Under RIIO-GD2, the shrinkage Output Delivery Incentive (ODI) encourages minimisation through two mechanisms:

- a reputational metric on total shrinkage volumes (ODI-R) (not included in ODI reward table) and
- a financial incentive linked to average system pressures (ODI-F), with rewards and penalties capped at $\pm 0.25\%$ of base revenue (included in ODI reward table)

In 2024/25, sector performance was generally strong, with overall shrinkage volumes falling by 2.1% year-on-year and 10.1% since RIIO-GD2 began. NGN delivered the best result with a 21.5% reduction, reflecting a higher RIIO-GD1 baseline, and earned a £0.4m reward. SGN Southern had weak performance, with shrinkage increasing by 5% to its highest level since the first year of RIIO-GD2, though it did secure a reward for pressure management. Only Cadent Lon and SGN Sc received penalties in the ODI-F.

Business Carbon Footprint (BCF)

Figure 9: GDN BCF year to year comparison



The BCF ODI is reputational and aims to ensure GDNs take responsibility for environmental impacts beyond shrinkage, while improving transparency on mitigation actions. This gives consumers clearer information on how GDNs are managing their environmental impact. When RIIO-GD2 targets were set, there was insufficient data to define baselines, so GDNs adopted their own methodologies and targets. Work continues to align approaches and enable meaningful comparisons across networks.

Sector performance in 2024/25 was mixed:

- **SGN delivered the strongest result**, achieving a 23.2% reduction against its baseline and remaining on track for its RIIO-GD2 target, though SGN Sc saw a 1.5% increase year-to-year
- **In contrast, WWU reported the highest rise in emissions**, at 11.2% against baseline and almost 7% year-on-year. However, much of this increase reflects a shift in reporting rather than actual emissions growth, as insourcing labour moved emissions from scope 3 into BCF.
- **Cadent made steady progress delivering an 11.9% reduction against its baseline**, with each region achieving year-on-year reductions.
- **While NGN’s emissions continue to creep up**, this year increasing 0.4% on last year.

Overall, while most networks are advancing toward their goals, fleet decarbonisation remains a consistent challenge in reducing emissions. Performance against the Commercial Fleet PCD will be a focus in the final year of RIIO-GD2.



Chapter Two: workload delivery

In this chapter, we provide an overview of GDNs’ actual and forecast activity related to two key volume drivers and one PCD mechanism for each company.

In this chapter we summarise the flexible funding tools to respond to investment needs across the RIIO-GD2 price control period.

These include PCDs and Volume Drivers, which are designed to ensure that the costs consumers pay for specific workloads accurately reflect what is delivered. There are differences between these mechanisms.

- A **Price Control Deliverable (PCD)** is a RIIO mechanism that ties funding to specific outputs agreed in the price control. It ensures companies deliver funded projects, with allowances adjusted if outputs are late, incomplete, or below standard. This protects consumers and promotes accountability, using either clear measurable criteria (mechanistic) or qualitative assessment (evaluative).
- A **Volume Driver** is an **uncertainty mechanism** within Ofgem’s RIIO-2 price control framework that adjusts a network company’s cost allowance based on the actual volume of work delivered. It is used where the required activity level is uncertain at the start of the price control.

Domestic connections volume driver

Table 6: Volume of domestic connections as % of allowed volumes

	4-year connections against the 4-year forecast	5-Year forecast position against the 5-year forecast
Cadent	57%	54%
NGN	49%	51%
SGN	46%	44%
WWU	54%	51%

The Domestic Connections Volume Driver provides funding based on the actual number of domestic service connections delivered.

During the first four years of the price control, all GDNs have consistently delivered domestic connection volumes below what was expected at the start of the price control. This downward trend has shown no sign of reversal. Connections continue to decline, and this is expected to persist into the final year of RIIO-GD2.

The sustained decline in demand for gas connections is primarily driven by government legislation and planning policies that promote low-carbon heating alternatives, particularly affecting new build properties.

We will continue to monitor these legislative measures, designed to promote low-carbon heating solutions, and assess how they drive demand for traditional gas connections toward greener alternatives.

Our view

Demand for new connections remains significantly below the levels assumed at the time of the RIIO-2 settlement, resulting in a substantially lower trajectory of volumes across the five-year period. The adjustments to allowances and the evolving delivery expectations throughout the price control, confirm that the volume driver mechanism is operating as intended.

Tier 2A mains replacement volume driver

Table 7: Teir 2A Mains decommissioned, 2022-2025

	Actual (Km)	% of forecast
Cadent	8.7	37%
NGN	6.2	61%
SGN⁸	0.0	0%
WWU	3.1	137%

This volume driver adjusts funding based on the actual length of Tier 2A iron mains and associated services replaced compared to forecasts. These medium-sized pipes are identified as high-risk under safety regulations, and their replacement volumes are unpredictable.

Across the sector, delivery of Tier 2A mains and services is varied. The unpredictable nature of Tier 2A workload—driven by risk assessments and operational factors (primarily pipe failures) has meant that actual volumes are expected to be different to the forecasts assumed at the time of setting RIIO-GD2. While some networks have managed to align their delivery with expectations, others have experienced lower volumes of assets that qualify for replacement compared to forecast volumes. The volume driver mechanism has played a key role in ensuring that funding reflects actual work completed, helping to balance efficiency and regulatory compliance.

Cadent's delivery has been shaped by the uncertainty around identifying qualifying Tier 2A pipes. Although Tier 2A mains replacement has been below the original FD forecast (37% of forecast mains replacement to date), Cadent expects to increase activity in the final year and move closer to its FD forecast. Cost management has generally been effective, but a rise in expenditure is anticipated as the network seeks to close the gap on its forecast.

NGN has experienced similar challenges, with actual delivery falling short of initial estimates (61% of forecast mains replacement). The network has highlighted the difficulty in predicting volumes and has relied on the volume driver mechanism to manage this uncertainty. Despite these challenges, NGN continues to focus on efficient delivery and cost control.

SGN has not delivered any Tier 2A mains or services during the RIIO-GD2 period, as no assets have met the risk threshold criteria for intervention. The network has reduced its forecasts, and no qualifying workload is expected for the remainder of the price control. SGN's experience demonstrates the variability in risk-driven asset management across the sector.

WWU has met its commitments for Tier 2A mains and services, delivering in line with regulatory expectations. The network has managed its costs effectively and does not anticipate further activity in this category for the final year of RIIO-GD2. WWU's performance reflects a stable approach to planning and delivery within the constraints of the regulatory framework.

Our view

Accurately forecasting Tier 2A assets for replacement has been a challenge, leading to significant variations in delivery for most GDNs compared to forecasts set at final determination. SGN continues to report no

⁸ SGN have delivered no volumes of Tier 2A Mains to date. Please refer to the appendix for more detail.

interventions on Tier 2A mains, while WWU continue to deliver volumes in line with forecast. These challenges highlight the importance of the Tier 2A mains volume driver introduced for RIIO-GD2, which ensures consumers only pay for the actual volume of work required, aligning costs with real-world needs and promoting efficiency.

Tier 1 repex mains and services PCD

Tier 1 Mains PCD – Volume Delivery

Table 8: Tier 1 volume target variance (% , 2021-2026)

	2022	2023	2024	2025	2026	Total
EOE	-4.8%	5.7%	8.3%	2.5%	0.0%	2.3%
LON	-2.5%	-5.6%	-6.1%	15.3%	-1.2%	0.0%
NW	10.7%	7.5%	-0.5%	-4.4	-7.4%	1.2%
WM	-2.7%	5.0%	2.6%	-2.2%	-2.7%	0.0%
NGN	2.1%	0.4%	9.5%	4.4%	-1.6%	3.0%
Sc	3.6%	7.5%	-1.3%	3.0%	-1.0%	2.4%
So	-2.3%	-15.0%	-21.7%	9.6%	6.6%	-4.5%
WWU	-10.0%	-0.3%	7.5%	0.4%	2.5%	0.0%

Across the RIIO-GD2 period, most GDNs are on track to meet or exceed their Tier 1 mains replacement targets, but there are differences in delivery performance between networks:

- **Cadent:** all four regions (East of England, London, North West, and West Midlands) are forecast to meet or slightly exceed their Tier 1 mains targets by the end of RIIO-GD2. London is a particular standout: after three years of under-delivery, it achieved a significant turnaround in 2024/25, over-delivering by 15.3% (an additional 47 km above target). The other Cadent regions have consistently met or exceeded their targets throughout the period.
- **NGN:** NGN continues perform well, exceeding its four-year target by 4.1%. To remain within the 3% over-delivery cap, NGN is forecasting a slight under-delivery in Year 5, resulting in an overall delivery of approximately 103% of the price control target—demonstrating strong, consistent performance.
- **SGN:** there is a contrast in performance between SGN’s two networks:
 - **Scotland** is over-delivering, having exceeded its four-year target by 3% and forecast to deliver 2.4% above target volumes for RIIO-GD2. SGN has said that delivery in the final year has had to be managed to avoid exceeding the 3% financial cap within the PCD.
 - **Southern** has improved in 2024/25, delivering 9.6% above the annual target, but remains 4.5% below the overall target for the period. Despite recent improvements, Southern is still under-delivering against its cumulative commitment. SGN has said that the turnaround in the final two years has been significant but has come at a high cost of delivery to re-engage the contractor market.

- **WWU:** slightly exceeded its 2024/25 target, narrowing its cumulative shortfall to just 0.6%. It is forecast to meet its Tier 1 Mains PCD commitment for the price control period, moving from a position of under-delivery to being on track by the end of RIIO-GD2.

Our view

Most GDNs, except for SGN Southern, are now ahead of their four-year targets and continue to forecast that they will meet or exceed their overall price control commitments. SGN Southern, which fell significantly short in year three by 21.7%, reversed this trend in year four with an over-delivery of 9.6%. While the region is still expected to slightly under-deliver across the price control, the substantial progress made demonstrates its efforts to catch-up. For Tier 1 Services, delivery is mixed—several regions, particularly within Cadent and SGN Southern, remain below target, mainly due to lower service density and the link to mains activity. However, mechanisms are in place to adjust allowances for any under-delivery, and overall, GDNs are maintaining progress towards their Tier 1 repex RIIO-GD2 obligations.

The progress achieved by all companies, despite the obstacles encountered, is commendable, and we expect their continued efforts to successfully deliver the Repex programme.

Capital Projects

Cadent's capital projects are progressing well.

- The Lowestoft Harbour project was completed early in the price control period.
- For the 13 capacity upgrades, all but two (cancelled projects) are on track, with several already completed or in construction.
- The Offtakes & PRS Metering programme is also on schedule, with a mix of completed, in-construction, and planned projects, all expected to be delivered by March 2026.

NGN's capital projects are on track.

- The TransPennine diversion works are progressing at different stages, with some diversions completed and others scheduled for completion in 2024/25 or 2025, depending on land negotiations and Network Rail requirements.
- The Overcrossings project is also advancing, with a number of upgrades, removals, and security enhancements completed, and the remainder expected to be delivered within the control period.

SGN is making good progress on all capital projects.

- Major works such as the Dunkeld pressure reduction station, Pitcairngreen to Huntingtower pipeline reinforcement, and the E&I Upgrade Programme are on track, with several projects already delivered or in advanced stages.
- Other projects, including Newton Mearns and Waterfoot PRS, Provan PRS, and Mappowder and Winkfield Offtake upgrades, are progressing as planned, with completion expected by March 2026. No significant risks to delivery have been identified.

WWU's main capital project, the HN039 LTS Pipeline Replacement, is on track for completion within the price control period and budget. The company reports that the project is progressing according to plan, with no major issues highlighted.

Our view

We are pleased with the strong progress being made across all capital projects, with major programmes on track and several already delivered, giving confidence that companies remain well positioned to complete their commitments within the price control period.

Bespoke PCDs

Bespoke PCDs are **company-specific outputs proposed by a network operator in its RIIO-2 Business Plan**, rather than being common requirements set by Ofgem across all licensees. They capture deliverables that are directly funded through the price control and are tailored to the unique needs, circumstances, or commitments of an individual company. Like all PCDs, they link funding to delivery of defined outputs. For RIIO-GD2, three of the four GDNs have bespoke outputs; Cadent, NGN and SGN.

Cadent is delivering strongly against its bespoke PCDs.

- The company has exceeded targets for initiatives such as the Personalised Welfare Facilities, supporting more vulnerable customers than planned.
- Progress on the London Medium Pressure PCD is robust, with more mains replaced and nearly all planned governor replacements completed, despite operational complexities.
- Cadent also completed the HyNet FEED study on schedule, fully meeting its objectives.

NGN continues to perform well against its bespoke PCD. The company has consistently exceeded the job completion lead time target for connections and alterations, with 93.7% of jobs completed within the 20-day target in 2024/25—well above the regulatory minimum. This reflects effective workforce planning and resource management, with steady year-on-year improvement.

SGN is making good progress on its bespoke PCDs across both Scotland and Southern networks.

- The Gas Escape Reduction and Remote Pressure Management programmes are on track, with installations progressing well and most outputs expected to be delivered by the end of RIIO-GD2.
- The Biomethane Improved Access Rollout is advancing, with key projects underway and scheduled for completion in 2025/26.
- Financially, SGN is underspending against allowances for these projects, and no major risks to delivery have been identified.

Our view

We are encouraged by the strong progress across bespoke PCDs, with companies consistently meeting or exceeding expectations and showing clear commitment to delivering these tailored outputs successfully by the end of RIIO-GD2.



Chapter Three: Innovation

In this chapter, we provide a brief overview of the expenditure related to the innovation activities for each company and an overview of the number of projects being advanced.

RIIO-2 Innovation Development

The RIIO-GD2 innovation framework is built around two core mechanisms: the Network Innovation Allowance (NIA) and the Strategic Innovation Fund (SIF). The NIA is designed to enable Gas Distribution Networks (GDNs) to pursue smaller-scale projects that address consumer vulnerability and deliver long-term financial or environmental benefits, while the SIF supports larger, strategic initiatives that accelerate the transition to a low-carbon energy system. Both mechanisms are intended to push GDNs beyond business as usual, fostering a culture of continuous improvement, collaboration, and sector-wide learning.

NIA performance

The purpose of NIA funding is designed to enable companies to take forward innovation projects that have the potential to address consumer vulnerability and/or deliver longer-term financial and environmental benefits for consumers, which they would not otherwise undertake within the price control.

This year GDNs have registered additional projects for funding under the NIA funding streams. The position of each GDN is as follows:

- **Cadent** - continues to make strong use of this mechanism, investing £12.3 million across 69 projects during RIIO-GD2. It continues to register new initiatives, with a focus on projects that deliver consumer benefits and support long-term environmental goals.
- **NGN** - has maintained a steady pace of innovation, spending £8.4 million on 71 NIA projects to date. NGN's approach prioritises projects with tangible benefits for customers and the wider network, and the company continues to register new initiatives each year.
- **SGN** - remains a leading innovator in the sector, investing £15.4 million across 115 NIA projects during RIIO-GD2. Its innovation programme is broad, covering a range of operational and consumer-focused initiatives.
- **WWU** - has delivered 91 NIA projects at a cost of £7.1 million, demonstrating a consistent commitment to innovation throughout RIIO-GD2. Cumulative NIA expenditure is forecast to be £10.0m against an allowance of £13.3m due to 3rd party delays. WWU continues to register new projects and is expected to make full use of its NIA allocation, focusing on initiatives that support consumer vulnerability and drive long-term efficiency across its network.

Strategic Innovation Framework (SIF)

The SIF is a new mechanism introduced in the RIIO-GD2 framework which seeks to provide flexibility to respond to innovation challenges as they arise, and potentially secure additional innovation funding for eligible projects.

- **Cadent** is making good progress, focusing on projects that modernise the network and support net zero. The company is embedding successful innovations into its operations and collaborating across the sector, with notable work in leakage analytics and environmental performance.
- **NGN** is advancing several SIF projects, particularly in hydrogen production and storage. Its collaborative approach is helping to develop new solutions for decarbonisation and is contributing valuable insights to the sector's energy transition.
- **SGN** - is investing in SIF projects that support the decarbonisation of gas networks. The company is moving key initiatives, such as hydrogen storage and network optimisation, from research into practical demonstration, helping to build sector knowledge for net zero.
- **WWU** - is progressing well, working with partners to drive innovation in hydrogen, green gas, and network optimisation. A highlight is the NextGen Electrolysis project, which is now moving towards larger-scale trials and supports the UK's energy system transformation.

Looking forward

The network companies are responsible for enabling innovation, which will help to drive down costs and result in new products and services for consumers. It is important that the right regulatory regimes are in place to encourage innovation and support investment in the most efficient solutions. We are continuing to consider improvements to how networks report on their innovation work.



Chapter Four: What level of cost performance are GDNs currently anticipating?

A summary of the GDN’s current view of cost expectations for activities permitted through the framework against the adjusted totex allowance position through to the end of the current five-year RIIO-GD2 period.

Network Cost Performance

In GB, energy network costs are regulated by Ofgem, which sets the maximum amount that network companies can recover from consumers through their energy bills.

Over the RIIO-GD2 period, NGN and WWU are forecasting underspends against their totex allowances of 6.1% and 1.6%, respectively. In contrast, Cadent and SGN anticipate overspends of 7.7% and 7.6% over the same five-year period.⁹

Table 9: GDN totex performance - five year forecast costs

<i>£bn 18/19</i>	Cadent	NGN	SGN	WWU	Total
1. Current forecast of GD2 expenditure	5.40	1.19	3.07	1.30	10.96
2. Current forecast of GD2 adjusted allowances¹⁰	5.01	1.27	2.85	1.32	10.45
Performance (1-2)	0.384	-0.08	0.22	-0.21	0.50
Performance (%)	7.7%	-6.1%	7.6%	-1.6%	4.8%

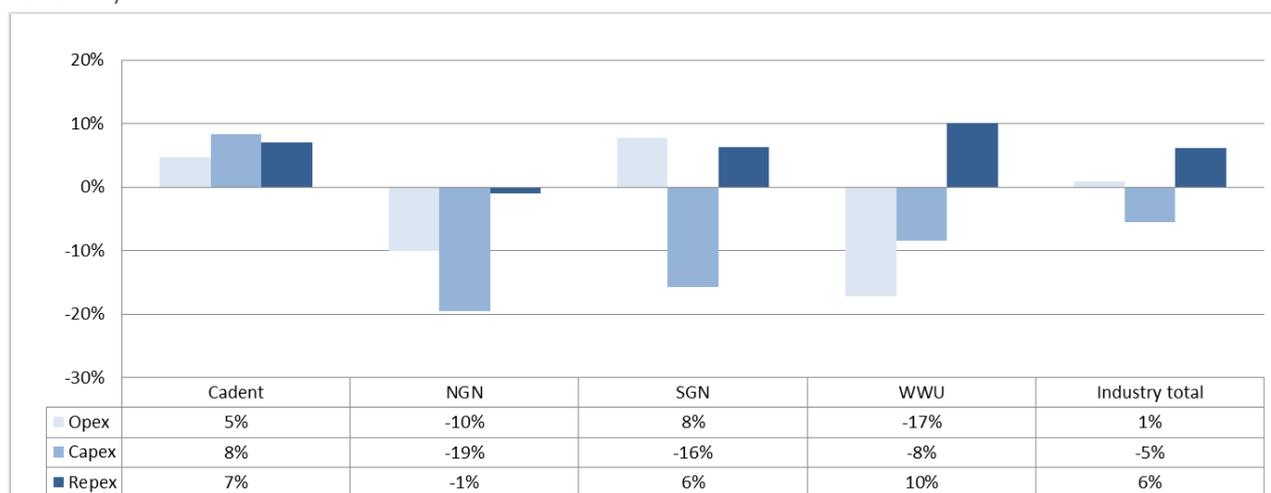
⁹ See annex for further information on network level performance.

¹⁰ GDNs’ forecasts included the full value of outstanding reopener applications at the time of RRP submission, which were subsequently reduced following Ofgem’s decision.

Table 10: GDN totex performance - four year actual costs

<i>£bn 18/19</i>	Cadent	NGN	SGN	WWU	Total
1. Current forecast of GD2 expenditure	4.27	0.93	2.31	0.99	8.50
2. Current forecast of GD2 adjusted allowances	4.02	1.01	2.27	1.05	8.35
Performance (1-2)	0.25	-0.09	0.04	-0.06	0.15
Performance (%)	6.3%	-8.5%	1.7%	-5.5%	1.8%

Figure 10: GDN performance by cost category (four-year expenditure against adjusted allowance shown as % variation)



Company performance is assessed at a totex level (i.e. totex compared to totex allowances). Figure 10 shows variances for individual cost categories to explain which activities are driving costs for each company.

Cadent is forecasting to overspend across Opex, Capex, and Repex by the end of RIIO-GD2. It said that Opex pressures are driven by increased IT investment, higher work management costs, and additional incident response needs, particularly in its East of England and North West networks. This is partially offset by efficiencies in training and lower work execution costs. Cadent has said that Capex overspend reflects investment in governor assets for compliance, supply chain and inflationary pressures, and increased project complexity, with some IT costs reclassified as Opex. Repex overspend is mainly due to challenging regulatory targets, inflation, and unexpected incidents, with the East of England and London networks most affected. Cadent considers that in London, urban complexity adds significant cost across all categories: dense populations and congested utilities restrict least-cost techniques, varied housing stock increases delivery challenges, and harder road surfaces combined with streetworks restrictions increase cost pressures for the London networks. It considers that these regional factors are not fully reflected in current allowances.

NGN is underspending on both Opex and Capex, with Repex broadly in line with allowance. It said that Opex savings are attributed to efficient cost management, lower workloads in emergency and repair, mild winters,

and successful completion of major programmes ahead of schedule, as well as reduced reliance on contractors. Capex underspend is mainly due to delays in major projects (notably the TransPennine Electrification), lower reinforcement workload, and reduced IT and telecoms expenditure, alongside some supply chain challenges. For Repex, NGN has said that its focus on direct delivery, process improvement, and proactive planning has kept costs controlled, with any minor overspends in specific categories managed through regulatory mechanisms.

SGN is forecasting an overall overspend, with mixed performance across its networks. Its Southern network is driving higher costs, while Scotland continues to underspend. In Southern, SGN has said that Opex overspend is mainly due to workforce expansion, rising streetworks charges, and high repair volumes, compounded by significant regional challenges. These include dense urban areas, congested underground utilities, and complex housing stock, all of which increase delivery difficulty and costs. SGN highlights that contractor and labour costs are notably higher in Southern due to a highly competitive market and stringent streetworks requirements. It considers that these regional factors are not fully reflected in current allowances. SGN has said that Capex underspend in both regions is largely due to project timings, cost differences, and some delayed work, although all projects are expected to complete on schedule. Repex has moved from underspend to overspend. SGN has said that Southern has faced substantial cost pressures from higher contractor rates and challenging project conditions, while Scotland continues to deliver below budget.

WWU previously had forecast an overspend against its RIIO-2 allowance, but it is now forecasting an overall underspend.¹¹ It is underspending on Opex and Capex but overspending on Repex. WWU has said that Opex savings are primarily due to a strategic shift to in-house delivery, increased use of core workforce, cost-cutting measures, and a focus on efficiency, with additional benefits from a milder winter and pension scheme closure. Capex underspend is driven by project timing, operational efficiencies, and delayed or rephased IT and infrastructure projects, though a significant overspend is forecast in the final year. WWU has said that Repex overspend is attributed to insufficient regulatory allowances, rising labour, material, and streetworks costs, and more complex work requirements, with these pressures outpacing regulatory adjustments and internal efficiencies.

Our view

As with previous years, GDNs continue to face cost challenges, with delays at the start of the price control—largely due to the pandemic—requiring accelerated efforts to meet delivery forecasts. Inflationary pressures and contractor availability have posed difficulties for some networks.

Overall, workload delivery in 2024/25 has remained robust, with most companies meeting or exceeding their core output targets for mains replacement and service interventions. The majority of GDNs are on track to deliver their RIIO-GD2 commitments, reflecting effective planning and adaptability in the face of operational and economic pressures. While some regional variations persist, such as under-delivery in areas with lower-than-expected service density or earlier shortfalls, these have generally been offset by improvements elsewhere, particularly where companies have increased resources or adjusted delivery strategies.

Cost performance is mixed, with overspends common in regions facing higher inflation, urban complexity, or regulatory pressures, but some networks have achieved efficiencies and underspends.

¹¹ See appendix Section 3 cost category performance for further detail.

Overall, the sector has demonstrated resilience and a strong focus on maintaining safe, reliable, and efficient delivery as the price control period approaches its conclusion.

We remain committed to working with the GDNs to ensure continued progress against the commitments set out in the Final Determinations. Our focus will be on monitoring delivery, providing support where needed, and maintaining transparency to ensure that agreed outputs are achieved for the benefit of consumers.

